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Rural-urban migration and gender disparities in child healthcare in China and India

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ABSTRACT

This paper assesses the impact of rural-urban migration on gender disparities in children's access to healthcare in China and India. Much research has shown widespread discrimination against girl children in both countries, including in health investments, contributing to the well known problem of Asia's "missing" women. Much less clear is the impact of the massive rural-urban migration now occurring in China and India on discrimination against daughters. Migration is usually thought to have a positive effect on child health, because of improved access to healthcare facilities, but this is not necessarily equally beneficial for both sons and daughters. Based on 14 months of fieldwork with rural migrant families in Shenzhen (China) and Mumbai (India), this paper argues that where migration improves access to healthcare, it may increase rather than decrease the gender gap in treatment of child illness in the short term as resources are concentrated on the treatment of sons. Furthermore, it is not the case that rural-urban migration necessarily leads to better access to healthcare even for sons, since some forms of migration may actually have an overall negative effect on child health outcomes. Development strategies focusing on large scale rural-urban migration are therefore doubly not a short-term solution to problems of gender inequity in child health.

1. Introduction

In his famous 1990 article, Amartya Sen claimed that worldwide, and especially in Asia, women were "missing" in their millions from the population totals of many countries. He concluded that his calculations told "a terrible story of inequality and neglect leading to excess mortality of women" (Sen 1990: 61). More recently, a UNDP report found that China and India together account for more than 85 million of the nearly 100 million girls estimated "missing", either because they died from discriminatory treatment in healthcare and nutrition or from pure neglect, or because they were never born in the first place (UNDP 2010). This paper examines discriminatory treatment in healthcare in China and India in the context of the massive rural-urban migration currently taking place in both countries. In particular, it asks what is the impact of such migration on gender discrimination in healthcare for the

migrant sons and daughters of the hundreds of millions of migrant workers in the cities of China and India.

Both countries are known to have an enduring strong preference for male children, leading to discrimination against daughters, confirmed by much recent research. Scholars have found evidence for serious female disadvantage over the last two decades in both China (Arnold & Liu, 1986; Coale & Banister, 1994; Banister, 2004; Chan, Blyth & Chan, 2006) and India (Kishor, 1993; Murthi, Guio, & Drèze, 1995; Griffiths et al, 2000). However, although much attention has been paid to the potentially huge social consequences of widespread rural-urban migration in both countries, there is very little literature examining the effects of migration on children, who are generally assumed to share in the adult benefits (and, to a lesser extent, burdens) of migration. In particular, there is to my knowledge no study in any country of the impact of rural-urban migration on migrant children differentiated by gender.

2. Rural-urban migration, gender discrimination and healthcare

Since the early 1980s, China and India have experienced unprecedented levels of internal migration. The 2001 census suggested there were around 300 million internal migrants in India (Census of India, 2001), while in China there were at least 250 million in 2011 (National Bureau of Statistics of China, 2012). While many migrants in both countries move between rural areas, the fastest growing migration type is rural to urban, as migrants choose to work in better-paid non-farm occupations in urban areas. Many of these rural migrants take their children with them. One NGO study estimates that in 2000 there were 60 million rural migrant children in India (Jain, unpublished report), while conservative official statistics suggest there were 25 million migrant children in Chinese cities in the same year (Renmin ribao, 2005).

There is clear evidence of discrimination against daughters in health investments in India, ranging from differential use of healthcare to vaccination to food intake, and this is thought to account for a significant proportion of the Indian sex ratio imbalance (Das Gupta, 1987; Griffiths et al., 2000; Borooah, 2004; Pande, 2003; Mishra et al., 2004; and Oster, 2009). This paper focuses on the use of healthcare facilities, largely because it would not be feasible to study most other types of health investment within the context of migration, because of the impossibility of separating pre-migration from post-migration effects. Although gender discrimination in the form of female infanticide in India has long been studied, the phenomenon of differential use of healthcare facilities was not well recognised until Barbara

Miller's pioneering study of female neglect in rural north India (Miller, 1981). Subsequent studies have confirmed that inadequate medical care for daughters, as well as shortfalls in the supply of food, contribute to excess female mortality in many parts of India (George, Abel and Miller, 1992). Furthermore, Monica Das Gupta and others have shown that the neglect of daughters' health may be selectively applied, with higher parity daughters having increased risk of death in infancy (Das Gupta et al, 2002). In China too there is evidence of discrimination against daughters in healthcare. Most of the imbalance in sex ratios in China is thought to be due to sex selective abortion, rather than excess female infant mortality, and what little gendered data exist on nutrition and disease do not show significant differences in food intake, illness or disability; however, there is evidence that more boys than girls receive hospital care and that parents pay more for boys' medical treatment (Wang and Li, 1994); and that more boys receive immunisations than girls (Li, 2004). It seems likely that this contributes to the rising trend in female infant mortality (Li et al, 2004; Sawyer, 2012).

The impact of rural-urban migration on child health is thought to be generally positive. A recent study analysing the effects of rural-urban migration on infant mortality rates in Bangladesh has shown a clear improvement among migrants compared with rural non-migrant children, despite the significant gap between migrant and non-migrant urban children, suggesting that despite inequalities between urban residents and migrants, rural-urban migration improved child survival and health status (Islam and Azad, 2008). Similar results have been found in many countries: Brockerhoff's analysis of demographic and health survey data from seventeen countries demonstrates that the survival prospects of rural-urban migrant children were mostly higher than those in their rural origin areas, despite remaining below those of urban non-migrants. Moreover, in some countries, including Senegal and Uganda, child migrants experienced a survival advantage above even urban natives, suggesting that some city-dwellers were unable to take as much advantage as rural migrants of high quality urban healthcare facilities (Brockerhoff, 1994; Ssengonzi et al, 2002).

Post-migration improvements in child mortality are usually attributed to both better living conditions and increased access to higher quality health services in urban areas.¹ However, whether all migrant children have equal access to urban medical facilities is doubtful, and it is difficult to predict the effect of rural-urban migration on gender disparities in healthcare.

Traditional modernisation theorists have tended to assume that economic development and

¹ Brockerhoff counts both "Improved housing facilities and structure" and "Increased access to/use of modern health services" as important factors in migration's effect on child survival (Brockerhoff, 1990:614).

urbanisation promote physical wellbeing and that the benefits do not differ by gender (Crenshaw & Ameen, 1993; Firebaugh & Beck, 1994; Frey & Field, 2000; Shandra et al, 2004; Shen & Williamson, 2001). In fact, it is possible that improvements in sanitation and healthcare might benefit girls more, given their natural early biological advantages, as suggested by the fact that male/female infant mortality ratios are larger in countries with low infant mortality rates than those with high infant mortality rates (Hill & Upchurch, 1995). Rural-urban migration may also be thought to affect gender preferences for children in girls' favour, since intergenerational transfer of land loses much of its social and economic significance, which may begin to equalise the 'value' of sons and daughters. The issue of women's work may also suggest that migration should lead to increased equality between male and female children, as non-agrarian employment begins to dominate the labour market, women's share of the labour force increases and their social status rises.

However, case studies that have investigated the association between development, urbanisation and migration on the one hand and gender differences in child mortality/neglect on the other have yielded quite different results. In their study of 43 countries, Tabutin and Willems (1995) found that, contrary to their expectations, correlations between child mortality differentials and the UNDP Human Development Index were weak and not statistically significant. Obermeyer and Cárdenas (1997) hypothesised less bias against girl children in Tunisia than in Morocco because of its higher level of economic development and urbanisation. They found instead that gender bias in immunisation and treatment for diarrhoea was significant in Tunisia, but not in Morocco. A 1995 study on India by Murthi, Drèze and Guio concluded that while mortality improved for both sexes with increasing urbanisation, the improvement was greater for boys. The positive effects of increased income and access to healthcare resources were concentrated on sons, causing a wider gender gap.

This surprising result should perhaps not be so surprising. Fuse and Crenshaw (2005) draw on the Kuznets curve to explain the relationship between development and equity, suggesting that female disadvantage is lowest at very low and very high levels of development, but is at its height during intermediate stages. At low levels of development even strong bias against female infants is offset by lack of access to decent medical facilities, whereas in highly developed societies advanced medical care more nearly equalises male and female infant deaths. At intermediate levels, however, boys begin to benefit from public health measures and improved social conditions, but change in longstanding and culturally entrenched bias against daughters lags behind (Fuse and Crenshaw, 2005). Emily Oster's 2009 work on vaccinations and health camps in India further clarifies the relationship between increased

access to medical facilities and increased gender equity, arguing that simple economic theory predicts a non-monotonic relationship between access and inequality. At low levels of access to investments, there is no investment for either the advantaged or disadvantaged group, producing equality. Increases in access increase investment for the advantaged group first, generating inequality, but further increases in access increase investment in the disadvantaged group, decreasing inequality (Oster, 2009).

It seems, then, that rural-urban migration in China and India is likely to decrease gender equity in children's use of healthcare, at least for those who have recently migrated, by increasing access to better quality medical facilities first for boys, while improvements in access for girls are less likely to be found during the first years after migration.

3. Fieldwork

I conducted seven months of fieldwork with recently-migrated rural families in Mumbai from October 2007 to April 2008, and in Shenzhen from May 2008 to December 2008, excluding August.

Mumbai, on India's west coast, is Maharashtra's state capital and India's most populous city, with a total population of about 16 million in 2001. It has more rural migrants than any other Indian city (Sivaramakrishnan et al, 2005:82). Mumbai is the richest city in India by GDP (Sridhar, 2010), as well as the commercial, financial and entertainment capital and India's busiest port.

Shenzhen is a city of sub-provincial administrative status in Guangdong province in southern China, situated immediately north of Hong Kong in the Pearl River Delta. The population is approximately 14 million, of whom only around 2 million have legal permanent residence in the city. The rest are migrants, giving Shenzhen the largest number of migrants of any Chinese city (Guangzhou ribao, 2010). Although not all migrants come from rural areas, it is estimated to have the highest rate of rural-urban migration in China (Tan, 2000:294). Since becoming China's first Special Economic Zone in 1980, Shenzhen has become a major manufacturing centre and the financial, commercial and industrial centre of southern China.

In Mumbai, I interviewed migrants in seven slums and eight construction sites. Construction is the largest migrant-employing industry, estimated to employ over 40% of the migrant work

force (Sarde, 2008:11). I was assisted in finding appropriate sites by several NGOs providing services to migrant workers and their children. I taught English classes in the slum and construction site schools of three NGOs, which greatly facilitated my acceptance in these communities.

[Map 1 here]

In Shenzhen I conducted interviews in eight sites of high in-migration within the SEZ boundaries, which I identified with help from two local students and a researcher from a local labour research organisation. I taught English unpaid in two private migrant-run schools in return for conducting interviews with pupils and teachers, which again made it easier for me to meet migrants.

[Map 2 here]

In both countries, I conducted two sets of interviews: one with parents of suitable “index” children, and one with children. This paper draws primarily on parent interviews, since children were less well informed about healthcare types and costs. In each city, I focused on index children who had come directly to the city from their home village in a rural area, within the last five years and between the ages of 6 and 12 years, both at the time of migration and at the time of interview. In both cities, I used snowball and intercept methods to find parent interviewees, interviewing in total 136 parents (and 80 children) in Mumbai and 92 parents (and 66 children) in Shenzhen. Interviews in both countries were semi-structured, consisting of a set of formal questions as well as informal discussion on issues arising. I asked parents what had been their child’s most serious illness before and after migration, what type of healthcare (specifically, state or private) they had used to treat that illness and the reasons for their choice. I also asked their opinions on the quality of the healthcare received in both village and city. All interviews were conducted in Hindi (in India) and Mandarin (in China), and I was assisted by a native-Hindi-speaker during the first four months in Mumbai. The names used here are not real names, since much of the information was sensitive or potentially compromising.

My interview data faces several limitations, the most serious of which is that informants’ memories may not have been entirely accurate. This is a particular problem for details of pre-migration healthcare, since interviewees had to recall details of an illness which occurred up

to five years previously. Since all interviews relied on self-reporting there was scope for misinformation, both accidental and deliberate. Deliberate misinformation is perhaps particularly likely in the case of China, where the sensitivity of some questions may have led informants to self-censor. Nonetheless, I believe this material remains valuable for presenting rarely-reported first-hand accounts of the impact of migration on children's access to healthcare. A larger problem with this research is the difficulty of generalising from these case studies. While the material illuminates aspects of the impact on children of migration to Shenzhen and Mumbai, whether it can provide larger generalisations about China and India is much less clear. Generalisations from Shenzhen – a city unique in China - are particularly problematic and should be made with great caution. Furthermore, the use of such a small sample of migrant families means that many conclusions even about the situation in the cities concerned can be made only tentatively. I have indicated where the quantitative data in this study provides statistically significant results; however, I have focused more of the analysis on the qualitative interview data, which provides a richer and more detailed account of the mechanisms of differential access to healthcare of boys and girls before and after migration.

4. Findings: Before Migration

I found that in both rural China and rural India, parents commonly used small private clinics to treat their children, rather than the state-provided village health stations (China) or state village sub-centres (India). Surprisingly, although state healthcare is provided free at the point of use in India, 72% (84) of parents said they had used private clinics, and only 26% (30) state healthcare, to treat their child's most serious illness before migration. Only two parents (2%) reported using just self-treatment (with home-made or purchased drugs) for their child's most serious illness, although some of the 20 parents who reported that their child had not been ill may have used only self-treatment but had not remembered the sickness.

In China too, more parents had used private clinics than state facilities to treat their child's most serious illness before migration. Two-thirds (57) had used private and a quarter (22) had used state healthcare, which, unlike in India, was much more expensive than private treatment. Self-treatment was more common than in India, with 8% (7) of parents treating their child's most serious illness this way.

[Table 1 here]

In both countries, that over two-thirds of child illnesses was treated in private clinics was largely because of considerably greater distances to state facilities. Although state healthcare was supposed to be (and, despite corruption, often was) free of charge in India, using state clinics had high indirect and opportunity costs, including transport costs and time away from work during state health centres' short opening hours. This meant that parents were unwilling to take children to state doctors unless their illness seemed very serious. For serious illness, state healthcare was deemed more suitable, since it was more affordable if extended treatment was required and was generally thought to be of much higher quality than unregulated private clinics, some of which operated from dwelling places or were not much more than shacks. In China, the relative costs were reversed: high quality state treatment was considerably more expensive than lower quality private. These higher costs, combined with significantly greater distances, meant that, as in India, most parents used state facilities only if an illness seemed very serious, preferring to take their children to unregulated private practices if symptoms seemed mild.

Although no parent mentioned that they personally had chosen private or state facilities specifically on account of their child's sex, in both countries there seemed to be a difference in type of treatment for boys and for girls. In rural China, private healthcare and self treatment with bought or homemade remedies only were reported as having been more often used for girls than boys, while state healthcare was more common for boys than girls, although this difference was not statistically significant (Table 2). In India, private healthcare was also more commonly used for girls, while state healthcare was more often used for boys, and here the difference by sex was statistically significant (Table 2).² I did not find a significant difference by number of siblings or birth order (perhaps because of small sample size).

[Table 2 here]

Some Chinese parents described how they had treated their sons in what seemed to be a proud tone. One father from Guangdong, who also had an older daughter, said:

“We have only one son...of course his health is very important. When he was ill, we took the bus to the big county [state] hospital. There the doctors were better educated, the

² Fisher's exact test showed a statistically significant difference in type of healthcare by gender (N=116, $p = .04$).

treatment was also better. It is different for us – if we were ill we would only take some medicine – but for our son’s treatment we must spend several hundred yuan each time.”

No parent seemed proud in explaining their daughter’s treatment, and some hinted that daughters had not received the same treatment as sons. One mother from Jiangxi explained:

“Consulting the doctor and buying medicine is very expensive...in our village some people say if a girl is ill it is better to wait a few days before going to the clinic. When our daughter had a fever we gave her some medicine and she recovered quickly; we did not need to go to the doctor.”

Another mother from Guangdong confirmed such attitudes’ prevalence in rural China:

“In the village some old people say do not take daughters to see a doctor. Although sons and daughters are equal, they think like this. It is common.”

Some Indian parents too seemed proud of the treatment their sons had received, and were more explicit about gender differences. When asked about an attack of fever suffered by his then-seven-year-old son, a father from Madhya Pradesh told me:

“The doctor was much better in the state clinic...the doctor in the private clinic has a certificate but it is actually a fake certificate... I did not send my son to this fake doctor [but] my wife took our daughters there.”

An Uttar Pradesh mother of two daughters and a son explained that she had not been able to treat her daughters at all when ill before migration:

“My mother-in-law would not allow me to take our daughters to the clinic if they were ill...in our family the expense of visiting the doctor was permitted only for boys.”

In neither country could differences in choice of treatment provider for boys and girls be explained by differences in illness, since parents reported very similar illnesses in both boys and girls: in India, “fever” was most commonly reported as the “most serious illness” for both

sexes, with malaria second, followed by diarrhoea, pneumonia, influenza, colds and injuries.³ In China, the most common “most serious illness” affecting both sons and daughters was a cold, followed by fever.⁴ Injuries, diarrhoea and other illnesses, all less common than in India, were reported no more frequently in boys than in girls.

In China, where state healthcare was invariably much more expensive than private, almost all parents who used state treatment did so because of the perceived better quality, regardless of their child’s sex. However, if the reasons given by Indian parents for using a type of healthcare are disaggregated by the child’s sex, different reasons emerge for their choices. Three quarters of parents of a girl index child reported choosing state healthcare because it was cheaper, and none because the quality was better, whereas many of those whose index child was a boy said that they chose it because the treatment was better quality.

A mother from West Bengal gave a typical answer about the use of state treatment for her daughter:

“The state clinic was closer and much cheaper than the private doctor...we paid only 2 rupees for case papers. When our daughter was ill with fever, I took her to the state clinic. For a long time the doctor was not there and we had to return later...it was less convenient, but our family had no money to pay for private doctors.”

By contrast, another mother from West Bengal explained the reason for choosing state treatment for her son:

“Our son had diarrhoea and my husband took him to the state clinic. He said that the doctor was much better in the state clinic and would send our son to the hospital if it was needed. The private clinic was close but the doctor there did not send people to the hospital”.

These differences in treatment provider cannot be explained by different patterns of illness for boys and girls in either country, since parents reported similar incidences of each illness for each sex. It seems, then, that there was a distinct gender bias in treatment before

³ Less common were tuberculosis, jaundice and other diseases, although these may have been reported as “fever”. Many parents were not familiar with disease names and described conditions by their symptoms. It is therefore probable that “fever” hides a multitude of different conditions.

⁴ As in India, “fever” may be used to describe many conditions where fever is a symptom, and the Chinese word “cold” (*gan mao*) may also describe influenza.

migration in both China and India, even if parents were not always conscious of (or willing to admit to) differential treatment.

5. Findings: After Migration

According to the arguments of Oster, Drèze, Murthi, Guio and others, we should not expect migration to lead to more gender equity in the short term. In fact, since migration is thought to increase access to decent quality healthcare facilities by bringing children closer to better clinics and hospitals, we should expect to find an initial widening of the gender gap in treatment of child illness, as resources are focused first on the advantaged group – sons. We should therefore expect that in both countries rural-urban migration increases the use of higher quality healthcare facilities for boys, but not for girls, and that the gap in the mean amounts spent on treating sons and daughters grows. To ease comparison, I have separated post-migration findings by country, examining the effects of migration in China first in §5.1, before turning to India in §5.2. In each section, I focus first on the general effects of migration on child healthcare, to establish whether access to decent quality healthcare improved overall, before separating the impact by sex.

5.1 China

In China the effects of rural-urban migration on gender discrimination in child medical care seem to be exactly as suggested above. Migration increased access to decent quality healthcare facilities, which widened the gender gap in treatment of child illness.

5.1.1 Types of healthcare used after migration

As in the countryside, most parents in the city (43%; 34) reported using private healthcare for their child's most serious illness. Nonetheless, there was a statistically highly significant shift in types of treatment used.⁵ After migration, the proportion using state healthcare and that using self-treatment only both increased: a third (26) treated their child's most serious illness in state facilities, and nearly a quarter of parents (19) used only self-treatment with bought or homemade remedies (Table 3).

[Table 3 here]

⁵ $\chi^2(2, N=79)=31.979, p<.001$

The large increase in self-treatment may not seem surprising since the worst health problem affecting most children in the city was a cold (followed by fever and influenza). However, potentially serious health problems, including prolonged fever were also sometimes treated this way, and self-treatment was used even by parents who had given their child professional treatment for similar symptoms before migration. Drug shops selling a wide range of medicines, including antibiotics, are common in Shenzhen. Whereas most “self-treatment” before migration had used homemade medicine, in the city most self-treatment involved shop-bought drugs, and many parents praised this method’s convenience. However, this type of treatment could be risky. Shenzhen retailers are mostly not knowledgeable about the drugs they sell, so parents had to identify the problem and determine the correct drug and dosage themselves.

Those parents who had used Shenzhen’s state healthcare for their child gave very positive reports about its quality. Doctors were judged to be well-trained, and the majority had a “good attitude”. Although queues could be long and registration complicated, hospitals were clean and had good facilities. Some parents complained of high costs, especially for treating simple problems such as colds. However, almost all who had used city state facilities were satisfied.

Reports of private clinics were much more mixed. Even some parents who had used private healthcare for their child before migration told me that they would not use urban private clinics, since they did not know or trust the individual doctors. Many reported that private healthcare in Shenzhen was not very different from private facilities in their native village, except in price. Several parents thought that “fake doctors” who had bought their licenses were common in private clinics, and some mentioned “fake medicine”. Three parents commented that private doctors in Shenzhen “lack morals”. One father told me:

“Many Shenzhen private doctors have no ability to cure a serious illness, but for the sake of making money will keep asking you to come back. Meanwhile, the disease becomes worse.”

Even many of those who had used private healthcare to treat their child's most serious illness after migration mentioned that, had the illness been more serious, they would have gone to the state hospital to receive better quality treatment.

Of the 26 parents who had used state healthcare to treat their child's most serious illness in the city, 16 thought it was better than the healthcare available in their village and 9 thought there was no real difference in quality between the two. None thought that village healthcare had been better. Of those 34 whose children had been treated privately in the city, though, only 11 thought it was better than in the village, while another 11 thought that the village clinic was better (and 8 thought that there was no difference). Although a surprisingly large number of parents reported no difference in quality between city and village healthcare, it seems that urban healthcare may be considerably better than rural, at least in urban state facilities. However, it is much less clear that urban private clinics are better than village ones, since nearly two-thirds of parents who had used them thought they were no better or were worse than in rural China, where the quality was already considered poor by many parents.

5.1.2 Reasons for healthcare choice

Why did most parents choose to use lower quality private healthcare for their child? As in the countryside, distance was the most commonly reported factor in determining type of healthcare provider, with most parents who chose private treatment for their child after migration doing so because it was closer than state healthcare. Although most Chinese migrants knew where the nearest state district hospital (the main provider of primary healthcare in Shenzhen) was, and how they might get there, many said it was too far from where they lived. Most said that it would require a journey on more than one bus, taking at least 30 minutes.

Several parents who had used private clinics for their child had done so because of less restrictive opening hours. State hospitals were open for primary care only during normal working hours, and there were often long queues, such that parents would have had to have missed several hours of work to have taken their child there. Many parents could not risk missing work, since they might lose their job. Wu, a mother who worked as a machinist in a garment factory described how workers were threatened with dismissal if they refused to work evening and weekend overtime, even if family members were ill. She had been refused permission to leave work when her daughter was ill with vomiting and diarrhoea. Wu had gone anyway, but was counted as "absent without leave" and fined three days' wages, in addition to the lost wages for the day she missed. Even self-employed parents could not always take time away from work to care for ill children. Yanqun, an eight-year old Hunanese girl, told me that she had missed school when she had a bad cold in the winter, but since her mother, a single parent, worked long hours as a street tailor seven days a week, no

one could look after her at home. Instead, she had sat in the street by her mother's sewing machine all day for several days. I asked if her mother had taken her to hospital, but she told me:

“She doesn't have time to accompany me there...we bought tablets at the shop. Mummy has to work hard every day. If she doesn't repair the clothes on time then [customers] don't give her money, and if they don't give her money then we can't buy things and I can't to go to school”.

Some parents admitted that they had chosen private treatment primarily because it was cheaper than state care. The mean reported payment in private clinics was RMB 129 (US\$ 20), with payments ranging from RMB 15 (US\$ 2) to 1000 (US\$ 152). Most parents had paid RMB 100 (US\$ 15) or less, and many under RMB 30 (US\$ 5). State treatment was much more expensive: the mean cost of treating a child's most serious illness was RMB 422 (US\$ 64), and payments ranged from RMB 60 (US\$ 9) to 6000 (US\$910). Less than half of parents had spent less than RMB 100 (US\$ 15) and many had spent RMB 300 (US\$ 46) or more. Most of those parents who used only self-treatment also did so for reasons of cost – either the direct costs of treatment, or the indirect costs of time away from work.

5.1.3 Impact on gender equity

As we might have expected, differences in the treatment of ill boys and girls became more pronounced after migration. A third (12) of girls' illnesses, but only 16% (7) of boys' illnesses, were not treated professionally, despite a reportedly higher incidence of potentially serious symptoms such as fever and fewer common colds in girls (Table 4). Boys were treated significantly more often than girls in state clinics. These gender differences in treatment, which had not been statistically significant in rural China, were significant after migration.⁶

[Table 4 here]

One Hunanese mother, a factory-worker, explained the use of self-treatment for her 11-year old daughter's diarrhoea:

⁶ Fisher's exact test showed that significantly more boys than girls received state healthcare after migration in China (N=79, $p = .02$). Note that again I did not find a significant difference by number of siblings or birth order (perhaps because of small sample size).

“I asked for permission to leave work to take my daughter to the clinic but it was not allowed... Finally, I bought medicine from the drug shop. The medicine worked well at first but now my daughter is ill again.”

Another mother, who had migrated from within Guangdong, said:

“I could not afford to take [my daughter] to the hospital. In Shenzhen it is easy to buy medicine for fever in the drug shop. It is much cheaper and more convenient.”

For those who did give their child professional treatment, the gender gap in the choice of state and private healthcare was again apparent (Table 4). State facilities in Shenzhen, like those in the villages, were used more for boys than girls. Private health care was again more common for girls.

One father from Guangdong described the different treatment given to his children. Despite having exclusively used private doctors before migration, he chose state medical care for his son, on the grounds of quality, after migration:

“In Shenzhen there are many bad doctors. It is not safe to go to private clinics where we do not know the doctor and do not know if he is good or bad. When my son was ill I took him to the [state] hospital. It is modern...the doctors are excellent”

However, when his daughter was ill, she was not treated professionally:

“I did not take my daughter to the [state] hospital because her illness [a fever] was not very serious. To go to the [state] hospital is very expensive; when my son was ill the cost was more than 500 yuan.”

Although typically, as here, the reason given for the difference in treatment was severity of illness rather than sex of child, this pattern was common.

Overall, although, as discussed above, the proportion of children using high quality state healthcare increased after migration, this increase applied only to boys. Although for both sexes there was a major decline in the use of private treatment after migration, for girls this was entirely on account of the large increase in the use of self-treatment, an even more risky

option. The pre-migration gender gap in type of treatment provider used therefore increased markedly after migration.

5.2 India

In India, surprisingly, the effects of rural-urban migration on gender discrimination in child medical care differed quite considerably. Unlike in China, the gender gap in child medical treatment narrowed after migration. This section sets out these surprising results, and the next considers their causes and implications.

5.2.1 Types of healthcare used after migration

As in China, after migration in India private healthcare was more widely used than state healthcare (Table 5). Two-thirds (74) of parents had gone to a private practitioner to treat their child's most serious illness after migration to Mumbai. However, unlike in China, there was a statistically highly significant decrease in the proportion of parents choosing state healthcare after migration⁷. Overall only 19 (17%) of the 111 whose children had been ill had used state healthcare to treat their child's most serious illness in the city, a drop of 9% compared with before migration. Furthermore, unlike in the village (and unlike in China) some parents reported using no healthcare at all for their child's most serious illness.

[Table 5 here]

The decline in state treatment after migration, and the rise of self-treatment or no treatment, may partly be explained by the fact that serious illnesses had not yet been experienced by some children in Mumbai unlike during their comparatively longer time in the village. The prevalence of a "cold" as the "most serious illness" increased after migration, and the proportion of children with "fever" declined. However, the incidence of some serious illnesses, including malaria, seem to have increased after migration, while dengue fever and chikungunya were mentioned for the first time, perhaps because many drains in city slum areas were contaminated with mosquitoes and malarial parasites. There was also an increase in reports of typhoid and polio, which although possibly a result of more accurate diagnoses, suggests a greater problem of water-borne disease after migration. Malnutrition was reported

⁷ $\chi^2(2, N = 111) = 131.16, p < .001$

for the first time, suggesting that difficulties with diet also increased after migration.⁸ The proportion of parents reporting child injuries also increased.

Furthermore, even when the same illness occurred in both places, the type of treatment provider used was often different. Except in cases of a common cold (for which no children were treated in state clinics before or after migration), in India there was an overall decrease in the use of state facilities for every illness type. For example, there were 11 cases of malaria as a child's "most serious illness" before migration and 15 cases after migration. Before migration, 7 children with malaria had been treated in state clinics and 4 privately. After migration, 11 were treated privately and only 4 in state facilities.

Most parents who had used state facilities for their child were happy with the treatment. Although there were reports of long queues, "unnecessary" return visits and disrespectful doctors, most parents thought city state doctors were well-trained and that hospitals in particular had good facilities. The same was not true of private healthcare. Many believed that Mumbai's private doctors were not well-trained, or commented that clinics were dirty and facilities poor. Seven parents mentioned explicitly that the clinic attended had no water, and one father said the floor was unswept. It was not common in the city, unlike in the village, to find state physicians who worked part time in private practice, so private physicians in Mumbai were unlikely to have received state medical training. Some parents mentioned approvingly that private practitioners spoke their native languages, and were politer than state doctors. However, other "positive" features of private healthcare may in fact have been detrimental: private doctors did not usually schedule follow-up checks, and they often depended on a parent's description of the child's symptoms and prescribed drugs accordingly, rather than doing diagnostic tests.

Most parents who had used professional healthcare for their child in the city believed that Mumbai healthcare was better than that in their village. Overall, many more of those parents who had used state healthcare in Mumbai preferred urban healthcare than of those who had used a private clinic in Mumbai. There may not have been much difference between some of the private healthcare options available to migrants pre- and post-migration. One father from Karnataka, who had used a city state hospital for his son's illness, but private clinics for his own problems, told me:

⁸ Although it is possible that children had suffered undiagnosed malnutrition before migration, my findings of increased malnutrition after migration to Mumbai agree with those of Hatekar and Rode, 2003.

“A private doctor is the same everywhere. Only the big [state] hospitals are better here”

Another father, from Andhra Pradesh, said:

“The [private] doctor is the same, the treatment is the same...The doctors have certificates but they are not genuine. Anybody can be a doctor this way. Many are fakes....there is no difference between [private doctors in] Mumbai and the village... it is only the fee which is more here!”

5.2.2 Reasons for healthcare choice

Unfamiliarity with city facilities and distance to state clinics were the most commonly cited issues in parents’ choice of treatment for their child. Of those who had chosen private treatment for their child in the city, many did so because they didn’t know whether or where alternative forms of healthcare could be found. Others had chosen a private clinic because it was closer than the nearest state clinic or hospital, but many of these were also unsure as to the location of their nearest state facility. Of all parents interviewed, nearly half were unable to tell me where their nearest state health-post (the main provider of primary care in Mumbai) was. More were aware of roughly where large state hospitals were, but not their precise location, how they would get there or the procedure for seeking treatment.

Families working in construction and living on the construction site were least knowledgeable about state healthcare in the city. Physically isolated from long-term urban residents, and associating almost exclusively with others from their own area of origin, they had limited mechanisms for learning about the city. Unlike in China, in India most migrants had not previously migrated and so had not acquired urban knowledge. Many, especially women, were fearful of the city, which acted as another barrier to integration. Many mothers on construction sites not only did not know the location of or how to use a state hospital, but were unsure whether they would be allowed in. These problems were compounded by their inability to speak Marathi or, in many cases, even basic Hindi. Even those parents (mostly fathers) who knew roughly where the nearest state hospital was, could not say how they might get there. In slum areas, where the sporadic availability of housing meant that families did not live only with others of the same geographical/linguistic background, migrant parents were more knowledgeable. One mother from Assam, who had lived in Mumbai for three

years and spoke good Hindi, did not know where the health-post or state hospital was, but said:

“if my son were seriously ill [and needed to go to hospital], I would ask my neighbour. She has been here much longer than I have. Her husband knows where the hospital is and which bus to take.”

Quicker treatment, shorter waiting times and longer opening hours were all also important factors in the choice of private healthcare, particularly where both parents worked and could not use the state health-post during its relatively short opening hours without missing work. For some parents, visiting any doctor during working hours was simply not possible: they would have been dismissed from their jobs.

Of the minority of parents who had used state healthcare to treat their child's most serious illness after migration, most had done so because it was cheaper. A quarter of parents who had used state healthcare had paid nothing, even for medicine, and many more had paid less than Rs.20 (US\$ 0.4). Some parents complained that although state treatment was mostly free, patients had to pay for beds and food as well as most medicines in hospital. However, for inpatient services, state treatment was certainly much cheaper than private hospitals, which were far beyond the means of most parents interviewed. The overall mean expenditure on private treatment in the city was Rs.1314 (US\$ 29). Only two parents had spent under Rs.20 (US\$ 0.4), while many had spent over Rs.100 (US\$ 2) – the average daily wage for an unskilled construction worker in Mumbai. Several had spent more than Rs.2000 (US\$ 44). This is much more expensive than state treatment. However, several parents emphasised that, once fees for transport and lost wages were taken into account, the cost difference for outpatient treatment between Mumbai state and private healthcare was much smaller.

The increase in self-treatment after migration undoubtedly relates to the greater availability of “over-the-counter” drugs. In Mumbai, a proliferation of shops sell drugs, including antibiotics, whereas few villagers were able to purchase drugs other than through clinics, and before migration “self-treatment” had usually been with homemade remedies. However, although purchasing drugs may have been cheaper and more convenient than consulting a physician, this relied on the parent not only diagnosing the problem accurately but also knowing what drug to use in what quantity. Treating a child's illness in this way was therefore a risky alternative, and could even be worse than no treatment. Furthermore, self-treatment and no

treatment were used in Mumbai even where a child had been treated professionally in the village for a less serious illness. Anjali, a 10-year old girl from Bihar, had been treated by a private practitioner for a bad cold in her home village, and had received an injection. However, in the city she had suffered fever with vomiting and diarrhoea, but her parents had not sought treatment, because they did not know where the state clinic was and could not afford a private doctor.

5.2.3 Impact on gender equity

As in China, I found that gender differences in type of treatment given to sons and daughters persisted after migration, with more boys treated in state health facilities than girls. However, unlike in China, in India the gender gap did not widen, as expected, but actually narrowed slightly after migration, and the difference between boys and girls was no longer statistically significant (Table 6).

This is partly because the decline in the use of state healthcare for children in India actually had a larger impact on sons, who were more often given state treatment before migration. The treatment of boys' most serious illnesses in state facilities decreased after migration (by 11%), and while the treatment of girls' illnesses in state facilities also decreased, the fall was slightly less dramatic (9%).

[Table 6 here]

A mother who had migrated to Mumbai from within Maharashtra gave a typical explanation of the decline in state treatment:

“In the village we always took our son to the [state] sub-centre. But here the [state] hospital is far away and I don't know if we can have treatment there.”

Another mother from Madhya Pradesh, an unskilled construction labourer, gave a similar account:

“We took all of our children to the state clinic in the village. But now I take them to the private doctor over there [a few streets away]. I don't know where the [state] hospital is or how to get there, and it would certainly take a long time to go there for treatment. We have to work overtime so it's not possible to do that”.

This pattern of greater decrease in the use of state treatment for sons after migration can also be seen within individual illness types. For example, the large decline in the use of state treatment for malaria for both sexes had a greater impact on boys: before migration all boys with malaria were treated in state facilities, but only around a third were given state treatment after migration. One mother from Maharashtra explained this change:

“When our son had malaria [in Mumbai], my husband took him to the [private] doctor. In the village we didn’t go to the private doctor because his treatment was not good, but there is no other kind of doctor near here.”

This is not to suggest that there was not still a significant gender gap in the treatment of malaria after migration, since the use of state healthcare for girls also declined, but that the greater decline in boys receiving state treatment caused the disparity to narrow.

6. Discussion

What are we to make of these surprising and seemingly contradictory results? In China, rural-urban migration works exactly as described by Oster; Murthi, Dreze & Guio; and Fuse & Crenshaw, *increasing* the healthcare disparity between sons and daughters, by widening the gap in type of treatment used for boys and for girls. Higher quality state healthcare, already more common for boys in the countryside, becomes even more frequent for boys in the city, whereas for girls there is no comparable shift towards better quality treatment. In fact, for daughters the shift is from low quality private healthcare towards even more risky self-treatment. In India, by contrast, migration works the opposite way, *reducing* the gender gap in type of treatment: both sexes are treated less frequently in higher quality state healthcare after migration, but the decrease is greater for sons, who had a higher rate of state treatment before migration. For both boys and girls, there is an increase in self-treatment and even in no treatment for a child’s illness.

That China follows the pattern predicted by Oster and Murthi, Drèze & Guio and India does not is especially puzzling since most of the literature on increased access to healthcare and its negative effect on gender equity comes from India! Is it that, as traditional modernisation theorists suggest, migration away from the land rapidly affects gender preferences for children in favour of girls? I suggest that the answer is simple, and still in line with the work

of Oster, Murthi et al: contrary to expectations, rural-urban migration in India does not increase access to healthcare.

Issues of unfamiliarity and social and geographical isolation from city facilities mean that many migrants in India actually have less access to state healthcare after migration, despite the fact that facilities are probably closer to their homes in the city. This is a serious problem, since state healthcare in the city, as in the rural areas, is generally much better than private healthcare. The declining access to state hospitals affects boys more, since they were the main recipients of state treatment before migration, narrowing slightly the gender gap in type of treatment. In this sense, the process is the exact reverse of that described by Murthi et al: migration results in increased income but *decreased* access to high quality healthcare facilities, which *negatively* affects both sexes but has a greater impact on boys, so that the gender gap in child healthcare *narrows*.⁹ Migration in India makes access to the state healthcare system more difficult for both sexes, but for boys the effect is larger since they had much higher rates of state healthcare use in the countryside.

In China, by contrast, after migration, the proportion of children treated in state hospitals increases, and this is a major positive effect of migrating. However, this benefit extends only to boys in my sample: there is no change in the proportion of girls' illnesses being treated in state facilities. As studies by Dreze, Murthi and others suggest for India, the greater availability of financial and healthcare resources after urbanisation in China is concentrated primarily on boys. Therefore, migration creates a larger gender gap.

Although migrants in Shenzhen face many of the same problems in accessing state healthcare as in Mumbai, including distance and indirect/opportunity costs, as well as the much higher costs of state healthcare in China, they are not as socially and geographically isolated. In Mumbai, migrants live either in slums, which may be in central areas of the city but remain separate from the urban life around them, or on physically isolated construction sites. Those on construction sites have fewest mechanisms for learning about the city, and this particularly affects women, who have fewer opportunities than men to leave the site and who are less likely to speak Marathi or even Hindi, reducing their chances of being able to communicate with long-term Mumbai residents.

⁹ In Murthi et al's study, urbanisation leads to increased income and increased access to healthcare, which positively affects both sexes but has a greater impact on boys, so the gender gap widens (Murthi et al, 1995:770).

Migrants in certain parts of some Chinese cities may be similarly isolated, but those within the Shenzhen are not. Although concentrated in districts of low quality housing, these are not separate from city life in the same way as Mumbai slums or construction sites. Furthermore, many migrant parents in Shenzhen travel widely in the city and interact frequently with non-migrants, especially through the operation of small businesses such as market and street stalls, which were the most common form of employment for migrant parents in Shenzhen. Many Chinese migrants, both male and female, had migrated at least once before, and had prior awareness of urban life. Therefore they generally have a much better idea of city facilities, including state healthcare. In some ways, better access to city facilities in China is surprising, since in China rural migrants are legally and administratively different from urban *hukou*-holders, and many Shenzhen migrants expressed anger at their administrative isolation and social distance from urbanites. Excluded from urban health insurance schemes, Chinese migrants may well experience worse health outcomes and lower access to healthcare than those Chinese with urban household registrations. However, although in India migrants are not legally different from urbanites, in practice they are much more isolated than in China – not only geographically but also socially and linguistically.

7. Conclusions

Although my research focuses on child healthcare use, rather than child mortality, I expected that I might find a similar result in India to those of Oster and Dreze et al. However, my data from India suggest that the opposite process is happening. It is in China, not India, where my research suggests something close to this trend. This surprising finding has two important implications for migration, gender and development.

First, the massive rural-urban migrations now taking place in Asia may not be, at least in the short term, a solution to the widespread problem of gender discrimination in child healthcare and the related “missing girls” phenomenon. As my findings from China suggest, although migration can lead to increased access to better quality healthcare, this initially results in improved outcomes for sons and not for daughters. Although, as Oster and others propose, the gender disparity may reduce over time, at least for recent migrants there is no noticeable improvement in girls’ access to healthcare. Even in India, where my findings show that the gender gap in child medical treatment narrows after migration, this is not due to an

improvement in the treatment of girls. Rural-urban migration, then, may not in the short term improve the medical care given to daughters.

Second, it is not the case that rural-urban migration necessarily leads to better access to healthcare for either sex. My results from India show that, on the contrary, migration can work against development where migrants are isolated from urban life and *de facto* excluded from urban services, such that both sons and daughters suffer from decreased access to medical care. When this is coupled with an increase in certain types of medical problems, as in many areas of crowded, unsanitary migrant dwellings, migration may even have an overall negative effect on child health. Development strategies focusing on large scale rural-urban migration are therefore doubly not a short-term solution to problems of gender inequity in child health, since increased access to healthcare does not affect both sons and daughters equally, and since migration may not even lead to increased access to healthcare.

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Tables and maps

TABLE 1

Table 1: Treatment of most serious illness of children ever ill, before migration

	INDIA	CHINA
Type of treatment	Number of children (%)	Number of children (%)
State	30 (26)	22 (26)
Private	84 (72)	57 (66)
Self or other treatment*	2 (2)	7 (8)
Total	116 (100)	86 (100)

*Includes self-treatment and alternative treatment (such as religious healing)

TABLE 2

Table 2: Treatment of most serious illness of children ever ill, by sex, before migration

	INDIA		CHINA	
	Number of children (%)		Number of children (%)	
Type of treatment	Boys	Girls	Boys	Girls
State	19 (32)	11 (20)	14 (33)	8 (19)
Private	39 (65)	45 (80)	26 (60)	30 (70)
Self or other treatment*	2 (3)	-	3 (7)	5 (12)
Total	60 (100)	56 (100)	43 (100)	43 (101)

Column totals may not equal 100% because of rounding

*Includes self-treatment, no treatment and alternative treatment (such as religious healing)

TABLE 3

Table 3: Treatment of most serious illness of children ever ill, China

CHINA	Number of children (%)	
Type of treatment	Before migration	After migration
State	22 (26)	26 (33)
Private	57 (66)	34 (43)
Self or other treatment*	7 (8)	19 (24)
Total	86 (100)	79 (100)

*Includes self-treatment and alternative treatment (such as religious healing).

TABLE 4

Table 4: Treatment of most serious illness of children ever ill, by sex, before and after migration, China

CHINA	Number of children (%)			
Type of treatment	Before migration		After migration	
	Boys	Girls	Boys	Girls
State	14 (33)	8 (19)	19 (45)	7 (19)
Private	26 (60)	30 (70)	17 (39)	17 (47)
Self or other treatment*	3 (7)	5 (12)	7 (16)	12 (33)
Total	43 (100)	43 (101)	43 (101)	36 (99)

Column totals may not equal 100% because of rounding

*Includes self-treatment, no treatment and alternative treatment (such as religious healing)

TABLE 5

Table 5: Treatment of most serious illness of children ever ill, India

INDIA	Number of children (%)	
Type of treatment	Before migration	After migration
State	30 (26)	19 (17)
Private	84 (72)	74 (67)
Self or other treatment*	2 (2)	18 (16)
Total	116 (100)	111 (100)

*Includes self-treatment, no treatment and alternative treatment (such as NGO treatment and religious healing)¹⁰

¹⁰ Some Indian parents had taken their child to a free-of-charge NGO doctor, an option not available before migration. In serious cases, NGO doctors referred the child to state hospital (in which case I have counted the child as having used state facilities).

TABLE 6

Table 6: Treatment of most serious illness of children ever ill, by sex, after migration, India

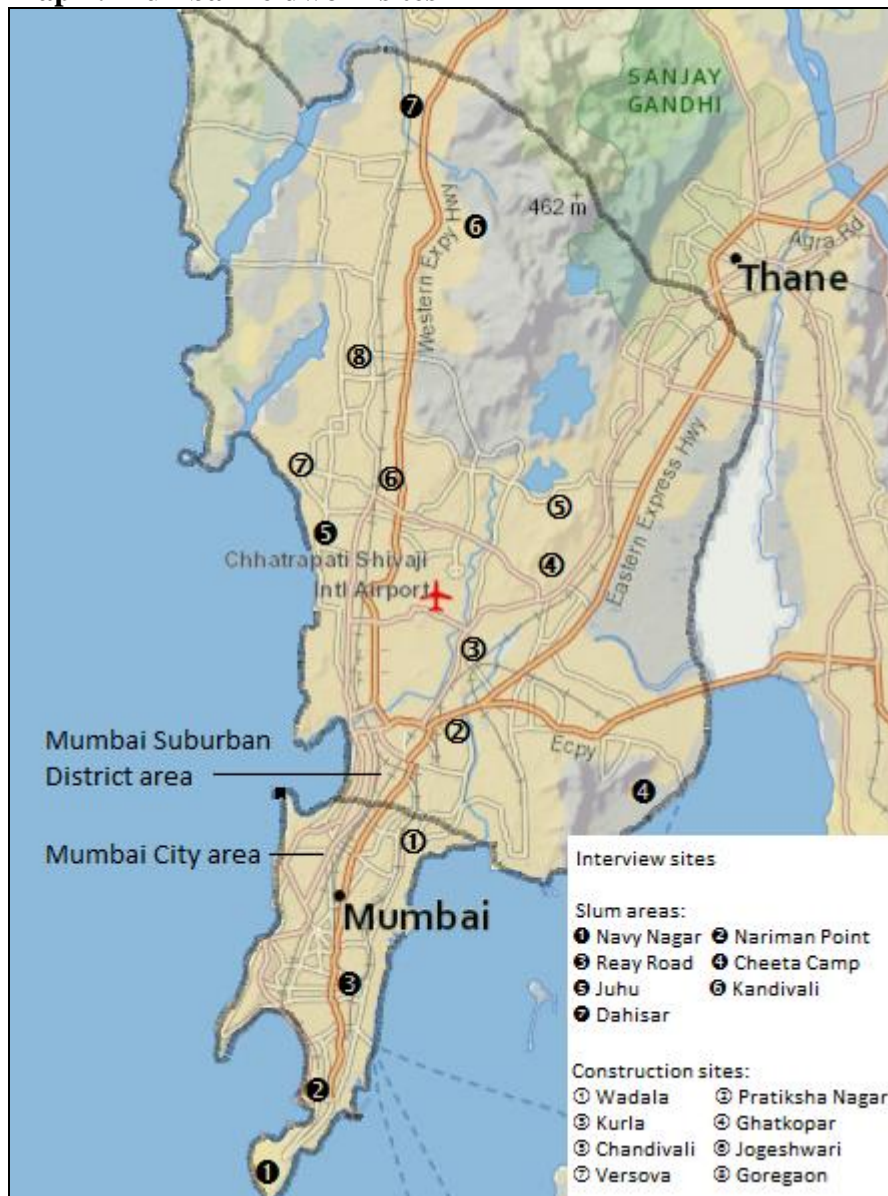
INDIA	Number of children (%)			
Type of treatment	Before migration		After migration	
	Boys	Girls	Boys	Girls
State	19 (32)	11 (20)	12 (21)	6 (11)
Private	39 (65)	45 (80)	39 (67)	36 (68)
Self or other treatment*	2 (3)	-	6 (11)	11 (21)
Total	60 (100)	56 (100)	57 (99)	53 (100)

Totals may not equal 100% because of rounding

*Includes self-treatment, no treatment and alternative treatment (such as NGO doctor and religious healing)

MAP 1

Map 1: Mumbai fieldwork sites



MAP 2

Map 2: Shenzhen fieldwork sites

